Claims

1. An intelligent traffic system, at least comprising a traffic control center, a traffic information service center, a cellular mobile communication system, a road toll collection system and an in-vehicle terminal, characterized in that the traffic control center, the traffic information service center, the cellular mobile communication system, and the road toll collection system are connected to each other via a wired communication network; the traffic control center communicates with the in-vehicle terminal via the cellular mobile communication system, to send instructions and information to the in-vehicle terminal and receive the intrinsic information and the dynamic information of the vehicle provided by the in-vehicle terminal; the road toll collection system communicates with the in-vehicle terminal via the cellular mobile communication system to perform toll settlement; and the traffic information service center communicates with the in-vehicle terminal via the cellular mobile communication system.

2. The intelligent traffic system according to claim 1, further comprises a vehicle traveling assistance system and a vehicle management system, the vehicle traveling assistance system and the vehicle management system are connected to the traffic control center via a wired communication network; the vehicle traveling assistance system and the vehicle management system communicate with the in-vehicle terminal via the cellular mobile communication system.

3. The intelligent traffic system according to claim 2, wherein the vehicle management system can be a part of the traffic control center.

4. The intelligent traffic system according to claim 2, wherein the vehicle traveling assistance system can be a part of the vehicle management system.

5. The intelligent traffic system according to claim 1, where the traffic control center comprises a traffic information acquisition system (212).

6. An in-vehicle terminal for an intelligent traffic system, which comprises: a central processing unit (10), a GPS module (11), a cellular communication module (12), a memory (13), a speech synthesis module (14), an output module (15), a number and function keyboard (16), an external interface (17), a display screen (18) and a sound/light signal unit (19), wherein the GPS module (11), the cellular communication module (12), the memory (13), the output module (15), the input unit (16), the

external interface (17), the prompting unit (18,19) are connected to the central processing unit (10), characterized in that the GPS module (11) at least receives the position coordinates of the present vehicle from a satellite and provides it to the prompting unit via the central processing unit (10), and the central processing unit at least generates the real-time information of the present vehicle; the cellular communication module (12) at least communicates with a traffic control center via a cellular mobile communication system and at least provides the real-time information of the present vehicle to the traffic control center; the cellular communication module (12) further communicates with a traffic information service center via a cellular mobile communication system, receiving related information, and can request the traffic information service center to provide the information needed.

7. The in-vehicle terminal according to claim 6, wherein the cellular communication module (12) further communicates with a road toll collection system via the cellular mobile communication system to perform toll settlement.

8. An in-vehicle terminal for an intelligent traffic system, which comprises: a central processing unit (CPU) (10), a GPS module (11), a cellular communication module (12), a memory (13), a speech synthesis module (14), an output module (15), a number and function keyboard (16), an external interface (17), a display screen (18), a sound/light signal unit (19) and a FM broadcasting additional channel digital communication module (121), wherein the GPS module (11) at least receives the position coordinates of the present vehicle from a satellite; the central processing unit (10) is used to generate the real-time information of the present vehicle; the cellular communication module (12) is used to communicate with a traffic control center to exchange information; the FM broadcasting additional channel digital communication module (121) is used to receive the digital information carried on the sideband of the public broadcasting frequency of a local traffic information specialized broadcasting station.

9. A method for realizing the object of an intelligent traffic system by using the functions of a cellular mobile communication system, which comprises the following steps:

at least establishing a traffic control center, a traffic information service center, and a road toll collection system;

setting an in-vehicle terminal in the vehicle to be managed by the system;

connecting the traffic control center, the traffic information service center, and the road toll collection system with a wired network;

establishing wireless connections between the traffic control center and the in-vehicle terminal, the traffic information service center and the in-vehicle terminal, and the road toll collection system and the in-vehicle terminal via a cellular mobile communication system and exchanging information via the cellular mobile communication system.

10. The method according to claim 9, wherein the traffic control center comprises a traffic information acquisition system (212) for collecting the information required by the traffic control center with various methods of information acquisition.